

THE  
BOTANICAL MAGAZINE;  
OR,  
Flower-Garden Displayed :

IN WHICH

The most Ornamental FOREIGN PLANTS, cultivated in the Open Ground, the Green-House, and the Stove, are accurately represented in their natural Colours.

TO WHICH ARE ADDED,

Their Names, Clafs, Order, Generic and Specific Characters, according to the celebrated LINNÆUS; their Places of Growth, and Times of Flowering :

TOGETHER WITH

THE MOST APPROVED METHODS OF CULTURE.

A W O R K

Intended for the Use of such LADIES, GENTLEMEN, and GARDENERS, as wish to become scientifically acquainted with the Plants they cultivate.

---

By *WILLIAM CURTIS*,

Author of the *FLORA LONDINENSIS*.

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V O L. XIV.

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“ No tree that is of count in greenwood growes,  
“ From lowest Juniper to Cedar tall;  
“ No flowre in field, that daintie odour throwes,  
“ And deckes his branch with blossomes over all,  
“ But there was planted or grew naturall :”

SPENSER.

---

L O N D O N :

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M DCCC.









PLATYLOBIUM FORMOSUM. LARGE-  
FLOWERED FLAT-PEA.



*Class and Order.*

DIADELPHIA DECANDRIA.

*Generic Character.*

*Cal.* campanulatus, quinquefidus, laciniis duabus supremis maximis, obtusis. *Legumen* pedicellatum compressum, dorso alatum, polyspermum.

*Specific Character and Synonyms.*

PLATYLOBIUM *formosum* foliis cordato-ovatis, germine piloso. *Smith Linn. Transf. v. 2. 350. Bot. New Holl. tab. 6. Cheilococca apocynifolia. Salisb. Prod. 412.*

All the plants of this family as yet known are natives of New Holland; the genus derives its name from the breadth of its pod or seed-vessel, and was established by Dr. SMITH, in the second volume of the *Transactions of the Linnæan Society*, where the present species, the only one then known, is described under the name of *Platylobium formosum*, or *Orange Flat-Pea*; a figure of it has been since given by the same author, in the second number of a work, entitled *The Zoology and Botany of New Holland*.

The seeds of this plant having been among the first of those imported from Botany-Bay, seedlings have been raised, and the plants have grown up and flowered in most collections of greenhouse plants about town; an opportunity has been thus afforded of ascertaining its beauty, and it must be confessed there are few papilionaceous flowers more handsome, the buds in particular are inexpressibly rich in colour, these are produced from June to August, but are rarely succeeded by ripe seeds in this country.

In raising this species, recourse is generally had to foreign seeds, for cuttings are not easily struck; great difficulty also attends the rearing the seedlings, as they are very apt to go off when young, when they advance in size they generally grow more freely; we have observed the plant to succeed very well with some, while others scarcely have been able to keep it alive.

# PLANTAIN FRONTSIDE LEAF FLOWERS (Lilium)

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All the plants of the family are native of New Holland: the genus which is now the subject of our study is found on both sides of the equator, and the general colour of the flowers of the plants is blue when the petals spread, the whole being a beautiful mixture of blue and white. The flowers are also a very fine blue, and the leaves are a very fine green.

The leaves of the plantain are very large and are very broad, and are very smooth, and are very green, and are very soft to the touch. The flowers are very large and are very beautiful, and are very blue, and are very sweet to the smell.

The plantain is a very useful plant, and is very common in all parts of the world. It is very hardy, and is very easy to grow, and is very useful for many purposes. It is very good for the stomach, and is very good for the liver, and is very good for the kidneys.







*S. Edwards del. Pub. by W. Curtis S<sup>t</sup> Gec: Crescent Feb. 1. 1800. F. Sanson sculp.*



## TRILLIUM ERECTUM. UPRIGHT TRILLIUM.



*Class and Order.*

HEXANDRIA TRIGYNIA.

*Generic Character.*

*Cal.* 3-phyllus. *Cor.* 3-petala. *Bacca* trilocularis.

*Specific Character and Synonyms.*

TRILLIUM *erectum* flore pedunculato erecto. *Linn. Syst. Veg.*  
*ed.* 14. *Murr.* p. 349. *Sp. Pl. ed.* 2. p. 484.

SOLANUM triphyllon brasilianum. *Bauh. Pin.* 167.

SOLANUM triphyllum canadense. *Corn. Can.* 166. t. 167.

SOLANO congener triphyllum canadense. *Morif. hist.* 3. p.  
532. f. 13. t. 3. f. 7.

Of this genus only three species have as yet been introduced into our gardens, viz. *sessile*, *cernuum*, and *erectum*, all natives of North-America, all collected by Mr. MILLER, and described in his dictionary: they are rare plants in this country, and will continue to be so, as they require much attention to their culture, and admit of but little increase from their roots; the *Tr. sessile*, already figured in the Magazine, is the most common, the *cernuum* next, and the present species the most rare, which, though not mentioned in the *Hort. Kew.* we have seen in the collection at Kew.

CORNUTUS gives a good figure of it, which is copied in MORISON.

It is a hardy, perennial, herbaceous plant, growing to the height of about nine inches, producing its flowers in May; it requires to be planted in a shady and somewhat moist situation, either in peat earth, pure light loam, or a mixture of both.

The roots of these plants, which are of the tuberous kind, might no doubt be raised with care from foreign seeds, but the process would be tedious, and the plants have scarcely sufficient beauty to compensate for the trouble.











ERICA MEDITERRANEA. MEDITERRANEAN  
HEATH.

*Class and Order.*

OCTANDRIA MONOGYNIA.

*Generic Character.*

*Cal.* 4-phyllus. *Cor.* 4-fida. *Filamenta* receptaculo inferta.  
*Antheræ* apice 2-fidæ pertusæ. *Caps.* 4-locularis, 4-valvis,  
poly sperma.

*Specific Character and Synonyms.*

ERICA *mediterranea* antheris muticis exsertis, corollis ovatis,  
stylo exserto, foliis quaternis patentibus, floribus  
sparsis. *Linn. Syst. Veg. ed. 14. Murr. p. 370. Ait.*  
*Kew. v. 2. p. 24. Linn. Mant. p. 229.*

ERICA *maxima* purpurascens longioribus foliis. *Baub. Pin. 485.*

ERICA *foliis* corios quaternis, flore purpurascente. *Baub. hist.*  
1. p. 356.

ERICA *corios* folio. 11. *Clus. hist. 1. p. 42.*

Though a native of the more southern parts of Europe, this species of Heath was unknown in our gardens till introduced by Mr. BROOKS\*, so lately as about 1765; now it is one of the most common, and will long continue to be one of the most desirable; in a few years it acquires the height of four or six feet, is very upright and handsome in its growth, and from March to May its branches are loaded with a profusion of lively blossoms.

In our account of *Erica herbacea*, page 11, we expressed some doubts whether it and the *mediterranea* might not be one and the same species, as they accorded in many respects; from examining them more attentively, we are satisfied that they are perfectly distinct: the *herbacea*, if left to itself, is low and spreading, the *mediterranea* tall and upright; the flowers in the *mediterranea* are shorter and more ovate, and have a degree of fragrance wanting in those of the *herbacea*; the filaments do not project so far, but the style farther; the *herbacea* blossoms at least a month earlier than the *mediterranea*; to these differences we may add, that the *herbacea* is perfectly hardy, while the *mediterranea* is liable to be killed in severe seasons, and is therefore usually kept in the greenhouse.

This species is easily struck from cuttings and easily preserved.

\* Hort. Kew.











ALOË PERFOLIATA, *var.* SUCCOTRINA.  
 SUCCOTRINE ALOE.



*Class and Order.*

HEXANDRIA MONOGYNIA.

*Generic Character.*

*Cor. erecta, ore patulo, fundo nectarifero. Filam. receptaculo inserta.*

*Specific Character and Synonyms.*

ALOË *perfoliata* foliis caulinis dentatis amplexicaulibus vaginantibus, floribus corymbosis cernuis pedunculatis subcylindricis, *var. δ Succotrina. Ait. Kew. v. 1. p. 466.*

ALOË *vera* foliis longissimis et angustissimis marginibus spinosis, floribus spicatis. *Mill. Dict.*

The figure here given was drawn in January 1799, from a plant in full bloom in the dry stove of the Apothecaries Garden at Chelsea; Mr. FAIRBAIRN informs me that it flowers regularly every year: the plant itself, supposed to be fifty years old, has a stem the thickness of one's arm, naked for the space of about four feet from the ground, then dividing into several large heads, formed of the leaves growing in clusters, from the centre of which arise the flowering-stems, two feet or more in length, producing spikes of flowers frequently much longer than those represented on the plate; these before they open are upright, when fully blown they hang down, and when out of bloom they turn upwards.

This undoubtedly is the *Aloë vera* of MILLER, and the *perfoliata var. succotrina* of Mr. AITON, that which produces the Succotrine Aloes of the shops, and is said to grow in the Island of Socotra or Socotora, in the Straits of Babelmandel; it is therefore highly interesting as a medicinal plant, and very desirable as an ornamental one.

Is propagated by offsets, which it does not produce in any great plenty, and to have it in perfection, it must be treated as a dry-stove plant.











PLINIA PEDUNCULATA. PEDUNCULATED  
PLINIA.



*Class and Order.*

ICOSANDRIA MONOGYNIA.

*Generic Character.*

*Cal.* 4. *f.* 5-partitus. *Petala* 4-5. *Drupa* supera, fulcata.

*Specific Character and Synonyms.*

PLINIA *pedunculata* floribus tetrapetalis pedunculatis: staminibus receptaculo insertis. *Linn. Mant. p.* 243.

PLINIA *pedunculata* floribus pedunculatis polyandris. *Linn. Suppl.* 253. *Ait. Kew. v.* 2. *p.* 166.

MYRTUS *brasiliana*. *Sp. Pl.* 674.

EUGENIA *uniflora*. *Sp. Pl.* 673.

PHILADELPHUS? *arborescens* foliis myrtinis, nitidis oppositis, ramulis gracilibus, pedunculis bipartitis alaribus. *Brown Fam.* 240. The Silver Tree.

The *Plinia pedunculata*, in its foliage and flowers, bears a great resemblance to some varieties of the Myrtle, of which genus LINNÆUS, following others, at first made it a species; on this account it may be regarded, in a certain degree, as an ornamental plant, it is moreover a very rare one: its flowers yield a considerable fragrance, much like that of the Orange blossom.

It is a native of the Brazils, and also of Jamaica, according to Dr. BROWN, and others: was cultivated here by Mr. MILLER, in 1759.

Our drawing was made January 18, 1799, from a plant in the tan stove of the Apothecaries Garden at Chelsea, which has been there a great number of years, and is now become a small tree, covered every year with a profusion of blossoms, which in some seasons have been followed by fruit.

The branches of this tree are slender, and covered with a light-coloured bark: the leaves ovate, opposite, firm, glossy, entire,

entire, somewhat contracted near the point, which is obtuse, standing on short foot-stalks, and turning black: the flowers are placed on large footstalks, which usually come out in pairs: the *Calyx* is deeply divided into four segments, which quickly turn back: *Petals* four, white, scarce perceptibly edged with hairs, turning back with the calyx, and quickly falling: *Stamina* numerous, inserted into the base of the calyx, which forms a kind of square receptacle; these also soon fall off, leaving the calyx and style standing: *Germen* small, usually imperfect.

Dr. BROWN, in his History of Jamaica, says, "this little tree is frequent in the red hills, and remarkable for its slender branches and myrtle leaves; it is now commonly called Red-wood by the negroes, and is looked upon as a good timber wood, but it seldom grows above four or five inches in diameter."







RHODORA CANADENSIS. CANADIAN  
RHODORA.



*Class and Order.*

DECANDRIA MONOGYNIA.

*Generic Character.*

*Cal.* 5-dentatus. *Cor.* 3-petala. *Stam.* declinata. *Caps.* 5-locularis.

*Specific Character and Synonyms.*

RHODORA *canadensis*. Linn. *Sp. Pl.* 561. Ait. *Kew.* v. 2. p. 66. L'Herit. *Stirp. nov.* t. 68. *Chamaerhododendros*. Duham. *Sem. app.* 10. t. 27. f. 2.

RHODODENDRUM *Rhodora*, *corollis tripetalis*. Linn. *Syst. Nat. ed.* 13. Gmel. p. 694.

The Canadian Rhodora is a hardy deciduous American shrub, of low growth, and considerable beauty, and the more desirable from the earliness of its flowering, which occurs before the foliage is fully expanded; the blossoms are very liable to be injured by the cutting easterly winds which sometimes prevail in April, the usual time of their appearance; it bears gentle forcing remarkably well, and thus may be had to flower in great perfection.

It requires to be planted in light bog earth, in which it is freely propagated by layers.

Is a native of North-America, and was introduced in 1767, by Sir JOSEPH BANKS, Bart.





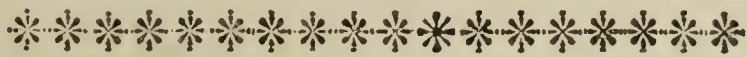








## PULTENÆA STIPULARIS. SCALY PULTENÆA.

*Class and Order.*

DECANDRIA MONOGYNIA.

*Generic Character.*

*Cal.* quinquedentatus, utrinque appendiculatus. *Cor.* papilionacea, alis vexillo brevioribus. *Legumen* uniloculare dispermum.

*Specific Character.*

PULTENÆA *stipularis* foliis linearibus mucronulatis subciliatis, stipulis solitariis binerviis laceris. *Smith Bot. New-Holland, t. 35.*

The name of *Pultenæa* has been given to this genus by Dr. I. E. SMITH, in honour of Wm. PULTENEY, M. D. of Blandford in Dorsetshire, whose various writings have so essentially contributed to the introduction and establishment of Linnean Botany in this country, and to the promotion of the useful arts connected with Botany, more especially Agriculture. It takes the name of *stipularis*, from its stalk being covered with scale-like stipulæ.

Seeds of this species having been introduced to this country with some of the first productions of New-Holland, the plant has flowered in several collections near town; we first saw it at Mr. BARR's, Nurseryman, Ball's-Pond, near Newington-Green. It is but seldom, however, that this species can be brought to blossom, or even be kept alive here for any length of time, if treated in the way that greenhouse plants usually are; possibly it would succeed better with a warmer regimen.

It flowers in April and May, and is to be raised only from imported seed.



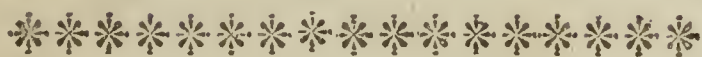








INDIGOFERA PSORALOIDES. LONG-SPIKED  
INDIGO.



*Class and Order.*

DIADELPHIA DECANDRIA.

*Generic Character.*

*Cal.* patens. *Cor.* carina utrinque calcari subulato patulo. *Legumen* lineare.

*Specific Character and Synonyms.*

INDIGOFERA *psoraloides* foliis ternatis lanceolatis, racemis longissimis, leguminibus cernuis. *Linn. Syst. Veg. ed. 14. Murr. p. 677. Ait. Kew. v. 3. p. 67.*

CYTYSUS *psoraloides*. *Linn. Sp. Pl. 1043.*

CYTISUS *africanus*. *Riv. Tetr. 71. f. 135.*

TRIFOLIUM *æthiopicum* ex alis spicatum. *Pluk. Phyt. 320. f. 3.*

The plant here figured is the true *Indigof. psoraloides* of LINNÆUS, a native of the Cape, and cultivated by Mr. MILLER, in 1758; there is another species somewhat similar to it, of much larger growth, and more recently introduced, frequently sold for it in the nurseries about town.

Though cultivated so long since in this country, the plant is far from common; it is of small growth: its flowers, produced from July to September, are of a lively purple colour, and usually succeeded by seeds, whereby the plant is increased, as also by cuttings.

Such as wish to see a minute description of it, may consult MURRAY'S, viz. the 14th edit. of the *Syst. Veg. Linn.*

Journal of the  
1850

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PELARGONIUM CRASSICAULE. THICK-  
STALKED CRANE'S-BILL.



*Class and Order.*

MONADELPHIA HEPTANDRIA.

*Generic Character.*

*Cal.* 5-partitus: lacinia suprema deficiente in tubulum capillarem nectariferum secus pedunculum decurrentem. *Cor.* 5-petala irregularis. *Filam.* 10 inæqualia quorum 3 (raro 5) castrata. *Fructus* 5-coccus, rostratus: rostra spiralia introrsum barbata.

*Specific Character and Synonym.*

PELARGONIUM *crassicaule* umbellis multifloris, foliis reniformibus obacuminatis, caule carnosio ramoso lævi. *L'Herit. Geran. n. 77. t. 26.*  
*Ait. Kew. v. 2. p. 428.*

Amidst that variety of appearance observable in the plants of this extensive family, several are distinguished by having stalks remarkably thick, and fleshy; from which circumstance the present species has been named by Mons. L'HERITIER, the first describer of it, *crassicaule*; it is not less obviously distinguished by its singularly shaped plaited leaves of a silvery hue; its blossoms are white, with a few minute purple dots at the base of the petals, and, in the original species, not very beautiful, but in the variety here figured, strikingly so; for the petals are not only of a considerable size, but on the middle of each there is a spot of the richest purple, which appearing on a ground of the purest white, produces the finest imaginable effect.

The *Pelargonium crassicaule* was first discovered by Mr. ANT. HOVE, on the south-west coast of Africa, and was introduced to the Royal Garden at Kew\* in 1786; the variety here figured was first possessed by Messrs. GRIMWOOD and Co. Kensington.

It requires a drier and warmer situation than the greenhouse usually affords; flowers in June and July, is of slow growth, and propagated by cuttings, but with difficulty; it rarely ripens its seeds, and if it were raised from them, the same beautiful variety might not be produced.

\* *Ait. Hort. Kew.*













## PHLOMIS LEONURUS. LION'S-TAIL PHLOMIS.



*Class and Order.*

DIDYNAMIA GYMNOSPERMIA.

*Generic Character.*

*Cal.* angulatus. *Cor.* labium superius incumbens compressum villosum.

*Specific Character and Synonyms.*

PHLOMIS *Leonurus* foliis lanceolatis ferratis calycibus decagonis decedentatis muticis, caule fruticoso. *Linn. Syst. Veg. ed. 14. Murr. p. 540. Mant. 412. Ait. Kew. v. 2. p. 309.*

STACHYS *africana* frutescens angustifolia flore longissimo phœniceo *Leonurus* dicta. *Morif. Hist. 3. p. 383. f. 11. t. 19. f. 17.*

LEONURUS *Capitis bonæ spei.* *Breyne Cent. 171. t. 86.*

LEONURUS *africana.* *Mill. Diet.*

DESCR. Rises with a shrubby stalk seven or eight feet high, sending out several four-cornered branches garnished with oblong narrow leaves, acutely indented on their edges, hairy on their upper, and veined on their under side, standing opposite; the flowers are produced in whorls, each of the branches having two or three of these whorls toward their ends; they are of the labiate kind, shaped somewhat like those of the dead-nettle, but are much longer and covered with short hairs; they are of a golden scarlet colour, so make a fine appearance: the flowers commonly appear in October and November, and sometimes continue till the middle of December, but are not succeeded by seeds here.

Is propagated by cuttings, which if planted the beginning of July, after the plants have been exposed to the open air long enough to harden, will take root very freely; when they have taken root, each cutting is to be planted in a separate pot filled with soft loamy earth and treated as a greenhouse plant, taking care to give it plenty of water in dry weather. *Mill. Diet.*

It is a native of the Cape and other parts of Africa; was cultivated in Chelsea garden in 1712. *Ait Kew.*

LINNÆUS remarks in his *Mantissa*, that it is the most showy of the genus.











GEROPOGON GLABRUM. SMOOTH GERO-  
POGON, or OLD-MAN'S-BEARD.



*Class and Order.*

SYNGENESIA POLYGAMIA ÆQUALIS.

*Generic Character.*

*Recept.* setoso-paleaceum. *Cal.* simplex. *Sem.* disci pappo plu-  
moso ; radii 5-aristato.

*Specific Character and Synonyms.*

GEROPOGON *glabrum* foliis glabris. *Linn. Sp. Pl. ed. 2.*  
*p. 1109. Ait. Kew. v. 3. p. 110.*

TRAGOPOGON *gramineo folio, glabrum, flore dilute incar-*  
*nato. Raii Suppl. 149.*

Most Botanists have seen, and are acquainted with, the *Tragopogon*, few have had an opportunity of observing the *Geropogon*, which is here introduced more on account of its being a rare and curious than an ornamental plant.

It is an annual, rising with a smooth stem and leaves to about the height of a foot, its flowers are flesh-coloured, and expand only when the sun shines on them ; they are quickly followed by seeds, deserving of notice for their structure, and as forming the chief distinction betwixt it and the *Tragopogon*.

Is a native of Italy, flowers in July and August, and was cultivated by Mr. MILLER in 1759. *Ait. Kew.*

No difficulty attends its culture ; its seeds, which must be timely gathered when ripe, should be sown in the spring where it is intended that the plants shall flower.









ERICA PUBESCENS. DOWNY-FLOWERED  
HEATH.



*Class and Order.*

OCTANDRIA MONOGYNIA.

*Generic Character.*

*Cal.* 4-phyllus. *Cor.* 4-fida. *Filamenta* receptaculo inserta. *Antheræ* apice bifidæ pertusæ. *Caps.* 4-locularis, 4-valvis, polysperma.

*Specific Character and Synonyms.*

ERICA *pubescens* antheris bifidis inclusis, corollis subovatis pubescentibus, foliis quaternis linearibus hispidis.  
*Linn. Sp. Pl. ed. 2. p. 506.*

ERICA *pubescens* antheris aristatis, corollis ovatis, stylo incluso, foliis quaternis scabris, floribus sessilibus lateralibus.  
*Linn. Syst. Veg. Murr. ed. 14. p. 365.*

ERICA *pubescens* aristata foliis ternis quaternisque linearibus scabris floribus umbellatis villosis. *Thunb. Prodr. p. 73.*

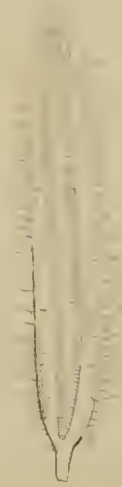
There are two Heaths very generally cultivated in the nurseries about town, agreeing in many respects, but differing in size and hairiness, which have been regarded as varieties of each other and called by wrong and inexpressive names; to us they appear, on an accurate examination, to be distinct species: the better to elucidate them, we have figured and described them both in the same number, regarding the smaller one as the *pubescens* of LINNÆUS, its hairiness being of the slighter kind, the other as a distinct species, under the name of *hirtiflora*, from the superior roughness of the hairs on its blossoms; the Linnean description will indeed apply to either.

The *hirtiflora* is much the largest plant, growing usually to twice the size of the other, and is as much distinguished by its bushy as the *pubescens* is by its twiggy appearance; the *hirtiflora* is in all its parts more strongly haired, both in stalks, leaves, and flowers; the form of the leaves is somewhat alike in both, convex above and concave beneath; but in the *pubescens* the leaves are narrower, the edges being rolled further back, so as to make the cavity or concave part almost linear, and to form a sort of *folium canaliculatum*; there is not much difference









ERICA HIRTIFLORA. ROUGH-FLOWERED  
HEATH.



*Class and Order.*

OCTANDRIA MONOGYNIA.

*Generic Character.*

*Cal.* 4-phyllus. *Cor.* 4-fida. *Filamenta* receptaculo inserta.  
*Antheræ* apice bifidæ pertusæ. *Caps.* 4-locularis, 4-valvis,  
polysperma.

*Specific Character.*

ERICA *hirtiflora* antheris bifidis inclusis, corollis subovatis  
hirtis, foliis quaternis linearibus hispidis, marginibus  
ciliatis.

in the general hairiness of the leaves, excepting that the hairs in the *hirtiflora* are stronger and more numerous, while in the *pubescens* they form more of a tuft at the extremity; but there is a very curious and striking difference in the hairs on the underside of the leaves, in the *hirtiflora* the edges are ciliated or fringed with a row of finer hairs, pointing inwards, which are altogether wanting or scarcely visible in *pubescens*; there is not much difference in the fructification, the flowers of *hirtiflora* are at least one-fourth larger than in those of *pubescens*, and the horns of the antheræ are more strongly haired: the glands at the base of the stamina, of a reddish colour, are very visible in the *pubescens*.

Both these species, natives of the Cape and recently introduced, flower from the autumnal to the spring months, and contribute more than almost any two other Heaths to enliven the greenhouse during the winter half-year.

The *pubescens* in particular is easily propagated by cuttings, and may be kept in a well-secured frame; the more air is admitted to it in suitable weather, the healthier will be the plant, and the more vivid the colour of its flowers.



ERICA LINCOLN - DOCK-FIELD

Hawaii

\*\*\*\*\*

Dear Sir,

Enclosed please find

check for \$100.00

for the amount of \$100.00 received from the  
estate of the late Mr. Lincoln. The amount is being  
paid to you as per instructions.

Very truly yours,

ERICA LINCOLN, Trustee of the Estate of the late  
Mr. Lincoln. The amount is being paid to you as  
per instructions.

In the event of the death of the donor, the  
amount of the gift shall be paid to the donee  
or his heirs, assigns and assigns forever. In the  
event of the death of the donee, the amount shall  
be paid to the heirs, assigns and assigns forever.  
This instrument shall be binding upon the donor  
and his heirs, assigns and assigns forever. In  
witness whereof, the donor has hereunto set  
his hand and seal at Honolulu, Hawaii, this  
1st day of January, 1900.

Erica Lincoln, Trustee of the Estate of the late  
Mr. Lincoln. The amount is being paid to you as  
per instructions.







CROTALARIA TRIFLORA. THREE-FLOWER'D  
CROTALARIA.



*Class and Order.*

DIADELPHIA DECANDRIA.

*Generic Character.*

*Legumen* turgidum inflatum pedicellatum. *Filamenta* connata cum fissura dorsali.

*Specific Character.*

CROTALARIA *triflora* foliis simplicibus ovatis sessilibus glabris, ramis angulatis, pedunculis ternis lateralibus unifloris. *Linn. Sp. Pl. p. 1004. Mant. 440. Berg. Cap. 193. Ait. Kew. v. 3. 19. Syst. Veg. ed. 14. Murr. p. 649.*

This very elegant species of *Crotalaria* is a native of the Cape, described by BERGIUS in his *Pl. Capenses*; by LINNÆUS in the second edition of the *Sp. Pl.* and to be found in the third volume of the *Hort. Kew.* to which garden Mr. AITON informs us that it was introduced by Mr. MASSON in 1786.

It is a biennial greenhouse plant, rising to the height of three or four feet, with a strong and for the most part unbranched stem, usually naked in its lower part; its leaves are large, uncommonly handsome when the plant is young, becoming more glaucous as it advances, and acquiring a somewhat rough surface; its flowers, of a bright yellow colour, are produced in August and September, on the summit of the stem, they stand singly on peduncles, which grow three together in the alæ of the leaves, and are generally succeeded by seed-vessels containing for the most part one seed only in each; if the season be favourable, these ripen in the open air, and by these the plant is raised without difficulty: as the flowers go off, both calyx and corollæ change to a dark brown colour, which in a slight degree disfigures the plant: to secure the ripening of the seed, it will be most prudent to set one or two of the forwardest plants in the greenhouse.

Mr.

Mr. ANDREWS has lately published this plant, under the name of *Borbonia cordata*, referring to the *Species Plantar.* of LINNÆUS for description and synonyms, with none of which does it in the least accord (see below); had Mr. ANDREWS made it a new species of *Borbonia*, he might perhaps have been justified from the structure of the seed-vessel, which it does not appear he had seen when the plant was drawn.

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**BORBONIA** *cordata* foliis *cordatis multinerviis integerrimis.*  
*Linn. Sp. Pl.*

**GENISTA** *africana frutescens rusci foliis nervosis fl. luteo.*  
*Seb. Thes. 1. p. 38. t. 24. f. 3.*

**PLANTA** *leguminosa æthiopica foliis rusci. Breyn. cent. t. 28.*







HEBENSTRETIA DENTATA. TOOTHED  
HEBENSTRETIA.



*Class and Order.*

DIDYNAMIA ANGIOSPERMIA.

*Generic Character.*

*Cal.* 2-emarginatus, subtus fissus. *Cor.* 1-labiata lab. adscendente, 4-fido. *Caps.* 2-sperma. *Stam.* margini limbi corollæ inserta.

*Specific Character and Synonyms.*

HEBENSTRETIA *dentata* foliis linearibus dentatis, spicis lævibus. *Linn. Syst. Veg.* 570. *Ait. Kew.* v. 2. p. 356.

VALERIANELLA *africana*, foliis angustis, flore macula rubicante notato. *Comm. Hort.* 2. p. 247. t. 109.

VALERIANOIDES flore monopetalo, femine unico oblongo. *Raii Suppl.* 245.

PEDICULARIS foliis angustissimis dentatis, floribus spicatis. *Burm. afric.* 114. t. 42. f. 2.

To this genus LINNÆUS gave the name of *Hebenstretia*, in honour of JOH. ERNST HEBENSTREIT, Professor of Medicine at Leipzig, who travelled into Africa, and published *Definitiones Plantarum* in 1731.

The present species, a native of the Cape, and introduced in 1770 by Mons. RICHARD, is now very generally met with in our greenhouse collections; it accords but indifferently with the name of *dentata*, the leaves being for the most part so slightly toothed, that the indentations are scarcely discernible; it appears to vary in this respect, and perhaps runs into the *integrifolia*.

It is singular and pretty, but not showy; produces its spikes of flowers from February to November, so that it is in bloom  
the

the greatest part of the year: it is usually increased by cuttings, and is very liable to be lost, hence it becomes necessary to have several pots of it in different situations.

LINNÆUS tells us, that the flowers in the morning are without scent, at noon they are stinking and nauseous, in the evening ambrosial like the oriental hyacinth: having neglected to pay due attention to this circumstance, we can neither confirm nor contradict it, but we suspect that the different odours it is said thus to diffuse are not very powerful. We take this opportunity of mentioning a fact relative to the *Manulea tomentosa*, which we had not discovered when we figured that plant; its flowers, which in the day-time have very little scent, late in the evening give forth a most penetrating and unpleasant one, so as to make a small greenhouse highly disagreeable.







## ERICA CILIARIS. CILIATED HEATH.



*Class and Order.*

OCTANDRIA MONOGYNIA.

*Generic Character.*

*Cal.* 4-phyllus. *Cor.* 4-fida. *Filamenta* receptaculo inserta. *Antheræ* apice 2-fidæ, pertusæ. *Caps.* 4-locularis, 4-valvis, polysperma.

*Specific Character and Synonyms.*

ERICA *ciliaris* antheris muticis inclusis, corollis ovatis grossis, stylo exserto, foliis ternis, racemis secundis. *Linn. Syst. Veg. ed. 14. Murr. p. 368. Ait. Hort. Kew. v. 2. p. 20.*

ERICA *ciliaris* foliis ovatis ciliatis, floribus axillaribus campanulatis: calicibus ciliatis. *Linn. Syst. Nat. ed. 13. Gmel. p. 623.*

ERICA foliis ovatis ciliatis ternis, corollis ovatis apice tubulosis irregularibus verticillato-racemosis. *Læfl. it. 138.*

ERICA *hirsuta* anglica. *Bauh. Pin. 602.*

ERICA xii. *Clus. hist. 1. p. 46.*

The name of *ciliaris* has been given to this species of *Erica*, from the leaves being strongly edged with hairs; this circumstance, undoubtedly, gives a striking character to the plant; there are other species, however, to which the same term would apply with equal propriety; but we must not be too nice on such points, provided the name be not bad in itself: the irregularity of the flower, as noticed by LOEFLING, *vid. Synon.* forms a more remarkable trait.

This species, a native of Spain and Portugal, and therefore hardy enough to bear the open air of this country in mild winters, was introduced, according to Mr. AITON, about the year 1773; it grows to the height of several feet, and, if judiciously treated, produces abundance of large purple flowers from July to September.

Though it is usual to plant this species in bog earth in the open border, to guard against accidents, it will be proper to keep a few of them in pots, and set them in the greenhouse during winter.

It is a plant of ready growth, and strikes readily from cuttings.

C. BAUHIN, mistakenly, calls it *anglica*, which has given rise to the idea of its being an English plant, but it is not.













BIGNONIA RADICANS. ASH-LEAVED  
TRUMPET-FLOWER.



*Class and Order.*

DIDYNAMIA ANGIOSPERMIA.

*Generic Character.*

*Cal.* 5-fidus, cyathiformis. *Cor.* fauce campanulata, 5-fida, sub-  
tus ventricosa. *Siliqua* 2-locularis. *Sem.* membranaceo-alata.

*Specific Character and Synonyms.*

BIGNONIA *radicans* foliis pinnatis: foliolis incisif, caule geniculis radicatis. *Linn. Syst. Vegetab. ed. 14. Murr. p. 563. Ait. Kew. v. 2. p. 348.*

PSEUDO-GELSEMINUM filiquosum. *Riv. Mon. 101.*

PSEUDO-APOCYNUM hederaceum americanum tubuloso flore phœniceo, fraxini folio. *Monf. Hist. 3. p. 612. f. 15. t. 3. f. 1.*

It is difficult to ascertain precisely when this beautiful climber was introduced to this country from North-America, its native place of growth; it was evidently cultivated here by PARKINSON in 1640, as in his *Tb. Botan.* he describes it minutely, and adds, "this never bore flower with mee, nor any other that hath it in our country that I could heare of:" we may from hence infer, that at this period it could not have been long or generally cultivated, as the plant blows freely enough at a certain age; MILLER says, in seven or eight years from seed.

The authors who first described this plant, called it by various names; PARKINSON, in criticising on some of these, is betrayed into an illiberality altogether inconsistent with his usual candour and gravity: "neither yet," says he, "doe I entitle it Gelseminum hederaceum Indicum, as that good French goose doth, whose horned name is prefixed to his worke of great judgement, no doubt to make it bear an ivy title that hath so little resemblance thereto;" alluding to CORNUTUS, who calls it by that name, and who most probably meant no more by *hederaceum*, than the similarity which  
the



the plant bore to Ivy in its manner of attaching itself to trees, buildings, &c. and in which he was perfectly justified.

This deciduous climber is very hardy, and will mount to the summit of the highest tree, or spread over the loftiest wall; hence it is recommended by MILLER for covering buildings which are unsightly: in the months of August and September it puts forth its rich magnificent trumpet-like flowers, in bunches at the extremities of its pendent branches, which produce the most charming effect imaginable; one of the finest trees (for such it is in reality) that we have seen of this sort, grows against the house of Dr. LEITH, near the hospital, Greenwich; there is a very old tree of it also, at the Apothecaries garden, Chelsea, the stem of which is the thickness of one's wrist.

It succeeds best when trained to the wall of some building, and supports itself by putting out roots in the manner of Ivy; but these roots, as in that plant, do not we believe contribute to its nourishment: it may also be trained up against the stems of tall and somewhat naked trees, and, if managed with taste and judgment, will make a charming appearance when in flower.

“ It is propagated by seeds (which rarely, we believe, or never ripen with us) but the young plants so raised do not flower in less than seven or eight years, therefore those which are propagated by cuttings or layers from flowering plants are most esteemed, because they will flower in two or three years after planting. The old plants also send out many suckers from the roots, which may be taken off, and transplanted where they are to remain, for these plants will not transplant safely if they are old.

“ The necessary culture for these plants after they are established, is to cut away all the small weak shoots of the former year in winter, and shorten the strong ones to about two feet long, that young shoots may be obtained for flowering the following summer; these plants are of long duration. There are some in gardens which have been planted more than sixty years, which are now very vigorous, and produce flowers in plenty every season.” *Mill. Diet.*

The *Bignonia radicans minor* has by many been considered as a variety of the plant here figured, but it differs so essentially in many particulars, that it seems to be entitled to be regarded as a species; there is an old plant of it and the *major* growing near together in Chelsea garden, in which we have observed that the *minor* is a much smaller plant, more disposed to throw out roots from its stems, infinitely less inclined to flower, varying greatly in the form of its leaves and in the size and colour of its blossoms, and upon the whole much less ornamental and desirable.







## SYRINGA PERSICA. PERSIAN LILAC.

*Class and Order.*

DIANDRIA MONOGYNIA.

*Generic Character.*

Cor. 4-fida. Caps. bilocularis 3-valvis supera.

*Specific Character and Synonyms.*SYRINGA *persica* foliis lanceolatis integris. *Linn. Syst. Veg.*  
*ed. 14. Murr. p. 57. Ait. Kew. vol. 1. p. 15.*SYRINGA *babylonica*, indivisis densifloribus foliis. *Pluk. Alm.*  
*359. t. 227. f. 8.*

It is difficult to say precisely when this charming shrub, a native of Persia, now so generally found in our gardens, and unknown to the older Botanists, was introduced; Mr. AITON has ascertained that it was cultivated here in 1658.

Of this plant, authors describe three varieties, one with blue, another with white flowers, and another with divided leaves, the latter considered by MILLER as a distinct species, and called by him *laciniata*, appears to have been the first known and introduced by the Persian name of *Agem*.

The Persian Lilac is a shrub of much humbler growth than the common sort, seldom rising above the height of six feet; its branches are slender, pliable, and widely extended, frequently bending downward from the weight of the flowers, which are produced from the beginning to the end of May in panicles uncommonly large, and are of a pale purple colour, with an agreeable scent, going off without producing any perfect seeds.

May be increased by suckers, but in a better manner by layers.

As this shrub bears forcing extremely well, it is one of those principally used for decorating windows, &c. in the spring of the year.









GLADIOLUS LINEATUS. PENCILLED  
CORN-FLAG.



*Class and Order.*

TRIANDRIA MONOGYNIA.

*Generic Character.*

*Cor.* 6-partita, ringens. *Stamina* adscendentia.

*Specific Character and Synonym.*

GLADIOLUS *lineatus* corollæ limbo tubo quadruplo longiore, incurvo patente; laciniis ellipticis, extus lineis 3 parallelis, suprema majore, exterioribus retusis. *Salisb. Prod. pag. 40.*

IXIA *squalida*  $\beta$  *Variet. stricta*, foliis strictis, laminis ovato-oblongis integerrimis basi concoloribus. *Hort. Kew. v. 1. p. 61.*

The flowers of this Corn-flag are of a delicate straw colour, more or less tinged with orange, finely and curiously pencilled with dark lines, which render it as much an object of admiration as brilliancy of colour does some of the others.

It appears to be a very distinct species, and is one of those lately introduced from the Cape by way of Holland; flowers in May, produces offsets in abundance, and requires the same treatment as the rest of the genus, grows readily, and blows freely.

*Descr.*—Stalk about two feet high, leafy below, above round, smooth; Leaves about half an inch wide, smooth, marked with one principal midrib; Flowers, five or six in a spike, which nods remarkably before they open, straw-coloured, tinged with orange in a greater or less degree, strongly and curiously marked with fine lines, three running parallel to each other down the middle of each segment, from whence those of the side branch off; on the inside of each of the three lowermost segments near the base, is a yellow spot, uppermost segment broader than the rest. Spatha two-leaved, leaves membranous, ribb'd, length of the tube of the corolla, ribs terminating in short awns; Stamens much shorter than the flower; Anthers linear, nearly parallel, bent a little upward, yellowish, sides dark-coloured; Style length of the stamens, trifid, segments bowed back, dilated at the extremity and villous.











RHODODENDRON CHAMÆCISTUS, THYME-  
LEAVED RHODODENDRON.



*Class and Order.*

DECANDRIA MONOGYNIA.

*Generic Character.*

*Cal.* 5-partitus. *Cor.* subinfundibuliformis. *Stam.* declinata.  
*Caps.* 5-locularis.

*Specific Character and Synonyms.*

- RHODODENDRON foliis ciliatis, corollis rotatis. *Linn. Spec. Pl. ed. 2. p. 562. Jacq. Fl. Austr. t. 217. Scop. Fl. Carniol. ed. 2. n. 481.*
- LEDUM foliis serpylli ad margines cili inftar pilosis, flore purpureo. *Mich. Gen. p. 225. tab. 106.*
- CHAMÆCISTUS VIII. *Clus. Hist. 1. p. 76.*
- CHAMÆCISTUS IV. *Clus. Pan. 64.*
- CHAMÆCISTUS hirsuta. *C. B. Pin. 466.*
- CHAMÆRHODODENDRON berberis folio flore amplo roseo. *Gmel. Sibir. 4. p. 126.*
- CISTUS chamærhododendros foliis confertis ferrea rubigine nitentibus, margine pilosis. *Pluk. Alm. 106. tab. 23. f. 4. ?*

For this very rare and beautiful little plant we are indebted to Mr. LODDIDGES, Nurseryman, at Hackney, who raised several of them from seeds sent him ten or twelve years ago, from Laubach, in Austria, by a friend who gathered them on the extreme tops of the Crain mountains.

It is a plant of very slow growth and difficult culture, which must always make it a great rarity. It flowers in April, is kept in bog-earth in a sheltered situation and Northern aspect.

The Cistus Chamærhododendros of PLUKENET is, perhaps, intended for some other plant, as the leaves of this are perfectly free from any ferruginous appearance.

As, perhaps, few English Botanists have seen the Rhododendron Chamæcistus in flower, the following description may not be unacceptable. It rises with several diffuse branched stalks,

stalks, scarcely a span high, thickly clothed with small ovate fleshy leaves, smooth on each side, ciliated at the edge; when young, they appear ferrated with a gland-bearing hair to each tooth; but as they grow older they become more fleshy, the notches disappear, and the glands at the extremity of the hairs perish. The Flower-Stalks about an inch long, hairy with glands, grow three or four together from the extremity of the branch, having two small concave bractæ at the base, and bearing each one flower. The Calyx is five-cleft, the segments conniving, lanceolate-oval. The Corolla of one petal, deeply divided into five segments, which are ovate, entire, and rotate, of a lively purple-colour, spotted at the base. Filaments ten, equal, longer than the corolla, incurved towards the tip, white; Anthers black, attached at the side; Pollen white. The Germ is hemispherical, of a green colour; the Style white, of an equal length or somewhat exceeding the stamens; the Stigma simple and green. The Seed-Vessel we have not seen.







SPIRÆA TRIFOLIATA. THREE-LEAVED  
SPIRÆA.



*Class and Order.*

ICOSANDRIA PENTAGYNIA.

*Generic Character.*

*Cal.* 5-fidus. *Petala* 5. *Caps.* polyspermæ.

*Specific Character and Synonyms.*

SPIRÆA *trifoliata* foliis ternatis ferratis subæqualibus, floribus subpaniculatis. *Sp. Plant.* 702.

ULMARIA major, trifolia, flore amplo pentapetalo, virginiana. *Pluk. alm.* 393. t. 236. f. 5. *Raii Suppl.* 330.

ULMARIA virginiana trifolia, floribus candidis amplis longis et acutis. *Morif. Hist.* 3. p. 323.

To this genus both the flower-garden and shrubbery are indebted for some of their chief ornaments. Of the hardy herbaceous species the *trifoliata* is considered as one of the most elegant; when it grows in perfection it certainly is a most delectable plant.

It is a native of North America, flowers in June and July, and was cultivated by Mr. MILLER, in 1758. *Ait. Kew.*

Being a plant much coveted, increasing but little, propagated with difficulty, and liable to be lost unless planted in a soil and situation highly favourable to it, it is scarce in the gardens about London.

It is usually increased by parting its roots; possibly these might grow when made cuttings of. MILLER says it is propagated by seeds, which should be sown on a shady border, soon after they are ripe; for if they are sown in the spring, the plants will not come up till the year after, and many times fail; they will require to be very carefully weeded and attended to.

The best situation for this plant is a North border; it loves moisture, and should be planted in light bog or peat-earth, or a mixture of it and a pure hazel loam.





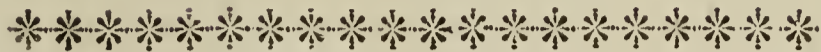






*S. Edwards del. Pub. by W. Curtis, S<sup>t</sup> Geo: Crescent Sep. 1. 1800. F. Sanjom sculp.*

CROTALARIA JUNCEA. CHANNEL'D-STALK'D  
CROTALARIA.



*Class and Order.*

DIADELPHIA DECANDRIA.

*Generic Character.*

*Legumen* turgidum, inflatum, pedicellatum. *Filam.* connata cum fissura dorsali.

*Specific Character and Synonyms.*

CROTALARIA *juncea* foliis simplicibus lanceolatis petiolato-fessilibus, caule striato. *Spec. Pl.* 1004. *Ait. Kew.* 3. p. 18.

CROTALARIA foliis solitariis lanceolatis lanuginosis, petiolis fessilibus, caule ramoso striato, flore magno aureo. *Trew. Ehret. tab.* 47. p. 15. Katou Tandala Cotti. *Hort. Malabar.* v. 9. p. 47. t. 26.

This annual is a native of the East-Indies; the seeds were brought to Mr. MILLER, at Chelsea-Garden, from the coast of Malabar before 1768, *Ait. Kew.* It rises with an angular, rushy, stiff stem, from three to four feet in height, dividing into branches. The leaves are oblong-lanceolate, alternate, covered with soft silvery hairs, which are much diminished in number by culture, as we found on comparing a native specimen from the coast of Coromandel, in the possession of Sir JOSEPH BANKS, Bart. The flowers are terminal, and disposed in racemes, each flower being furnished with a short peduncle, they are large, of a deep yellow, and resemble those of the Spanish Broom.

These are succeeded by large turgid pods, containing reniform or kidney-shaped seeds. This plant requires the treatment of the tan-stove.











## GENTIANA VERNA. VERNAL GENTIAN.

*Class and Order.*

PENTANDRIA DIGYNIA.

*Generic Character.*

*Cor.* 1-petala. *Caps.* 2-valvis, 1-locularis: *Receptaculis* 2, longitudinalibus.

*Specific Character and Synonyms.*

GENTIANA *verna*, corolla quinquefida infundibuliformi caulem excedente, foliis radicalibus confertis majoribus. *Linn. Spec. Pl.* p. 331.

GENTIANA *VI.* *Clus. Rar. Plant. Hist. Lib. III.* p. 315.

GENTIANA *verna.* *Smith. Flor. Brit. v. 1.* p. 285. *English Botany,* p. 493.

This elegant hardy perennial, a native of the Alps of Switzerland, Austria, and the Pyrennees, hath, as we are informed by Dr. SMITH, in his *Flora Britannica*, been discovered by Mr. HEATON, on the mountains between Gort and Gallway, in Ireland; and in Teesdale-Forest, Durham, by the Rev. Mr. HARRIMAN, and Mr. OLIVER.

Its flowers have a very agreeable scent, and will decorate either the open border or rock-work; they appear in April or May, and may be brought forward at least six weeks earlier, by being placed in the greenhouse.

It succeeds well in a mixture of peat-earth and loam.

The plant from which this figure was made, flowered this spring at the Botanic-Garden, at Brompton.









POLYGALA OPPOSITIFOLIA. OPPOSITE-  
LEAV'D MILK-WORT.



*Class and Order.*

DIADELPHIA OCTANDRIA.

*Generic Character.*

*Cal.* 5-phyllus: foliolis duobus alæformibus coloratis. *Legumen*  
obcordatum, biloculare.

*Specific Character and Synonym.*

POLYGALA *oppositifolia*, floribus cristatis racemosis, caule fruticoso pubescente, foliis oppositis cordatis acutis sessilibus.

POLYGALA *oppositifolia* floribus cristatis, caule fruticoso, foliis oppositis ovatis acutis. *Linn. Mant.* 259.

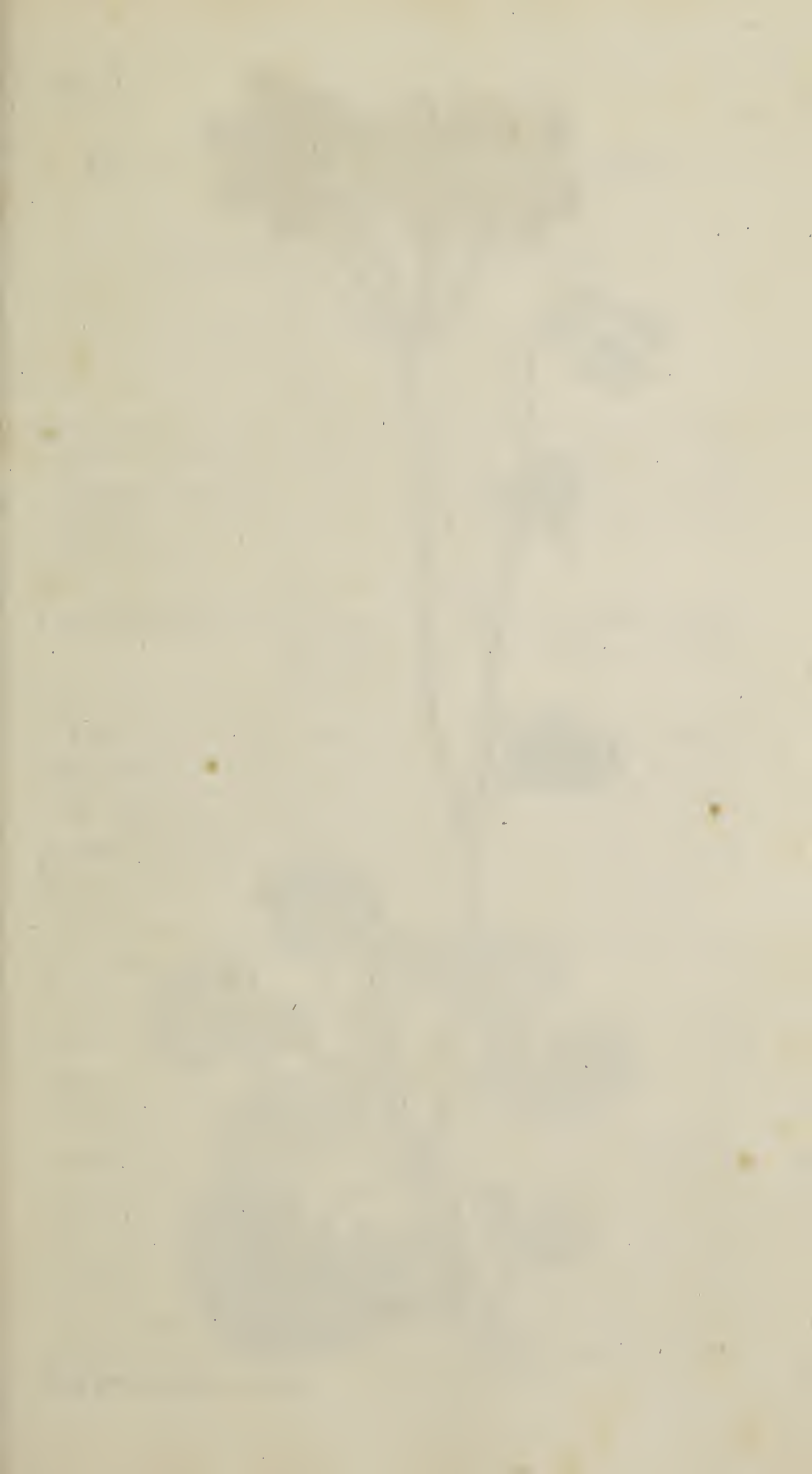
Of this numerous genus there are many species with shrubby stalks, which rise to a considerable height; such is the present plant, which has within these few years made its appearance in the greenhouses about town, and is to be admired for its rarity and singularity, rather than for its superior beauty; in that respect it is far eclipsed by the *bracteolata*.

The Stalk rises to the height of several feet, branching towards the top in a very irregular manner; is round, downy, and of a purple colour; the Leaves are opposite, sessile, heart-shaped, pointed, more or less hairy, on the old stems turned downwards; the Flowers grow in racemes for the most part, from the fork of the stalk, are about the size of those of the *bracteolata*, but less brilliant; each Peduncle is furnished at its base with a triphyllous bractea; the Stamens are eight in number, and the Stigma is remarkably hooked.

It is a native of the Cape, and usually increased by cuttings.









PELARGONIUM RENIFORME. KIDNEY-  
LEAV'D CRANE'S-BILL.



*Class and Order.*

MONADELPHIA HEPTANDRIA.

*Generic Character.*

*Cal.* 5-partitus: lacinia suprema deficiente in tubulum capillarem, nectariferum secus pedunculum decurrentem. *Cor.* 5-petala irregularis. *Fil.* 10 inæqualia: quorum 3 (raro 5) castrata. *Fructus* 5-coccus, rostratus: rostra spiralia, introrsum barbata.

*Specific Character.*

PELARGONIUM *reniforme* caule fruticoso: ramis superne incrassatis, foliis reniformibus, umbellis subquadrifloris.

This is one of the rarest of the Geranium tribe with so many species of which our greenhouses, and even our halls and windows, are now decorated. It has appeared in several gardens about the metropolis for these two years past, and was, probably, first raised from seeds sent from the Cape to the Royal Garden, at Kew, a source from whence the beauties of Flora are spread with a bountiful hand through the nation.

It is known in most of the nurseries by the name which we have adopted, but has not, we believe, been hitherto described or figured.

The best mode of cultivating this plant is by sowing its seeds, either in the spring or autumn, in a mixture of peat-earth and loam, as it is not easily increased either by cuttings or by parting its roots.

*Descr.*—Stalk from two to three feet or more in height, woody, towards the tops of the young branches remarkably thickened; Leaves alternate, standing on footstalks, reniform, crenated, slightly fragrant; Flowers in an umbel from two to four; Petals five, nearly equal, very bright purple, the two uppermost marked at the base with dark spots or streaks, the three lowermost but little so; Peduncles upright, villous, with a joint near the base; Calyces having four of the leaves reflexed, one upright when the flower is open; Stamens five perfect; Anthers of a pale purple colour.











## CENTAUREA RAGUSINA. CRETAN CENTAURY.

*Class and Order.*

SYNGENESIA POLYGAMIA FRUSTRANEA.

*Generic Character.*

*Recept.* setosum. *Pappus* simplex. *Cor.* radii infundibuliformes longiores irregulares.

*Specific Character and Synonyms.*

CENTAUREA *ragusina* calycibus ciliatis, foliis tomentosis natifidis: foliolis obtusis ovatis integerrimis: exterioribus majoribus. *Sp. Pl.* 1290. *Ait.*  
*Kew.* v. 3. p. 259.

JACEA *cretica* lutea foliis cinaræ. *Morif. - Hist.* 3. p. 141.  
*f.* 7. *t.* 27. *f.* 22.

JACEA *arborea* argentea *ragusina*. *Zan. Hist.* 107. *t.* 43.  
*Mill. Icon.* *t.* 152. *f.* 1.

STŒBE *montana* nivea capite cardui, subrotundis foliorum lobis. *Barr. Ic.* 309.

The *Centaurea ragusina*, a native of the isle of Candia, and of several places on the coasts of the Mediterranean, both in Europe and Africa, was cultivated here in 1714, by the DUCHESS of BEAUFORT, and is now a common greenhouse plant; it seldom exceeds the height of three feet; its stalks which are perennial, divide into many branches; the flowers are of a bright yellow colour, they appear in June and July, but the seeds seldom ripen in England: as this plant retains its leaves, which are extremely white all the year, it makes a pretty variety among others. If planted in dry lime rubbish, MILLER says, it will bear the cold of our ordinary winters, in the open air.

May be propagated by slips, or by planting the young branches, which do not shoot up: flower, in a shady border any time during the summer; in the autumn these may be removed into a warm border, or put into pots to be sheltered in winter.

Classical

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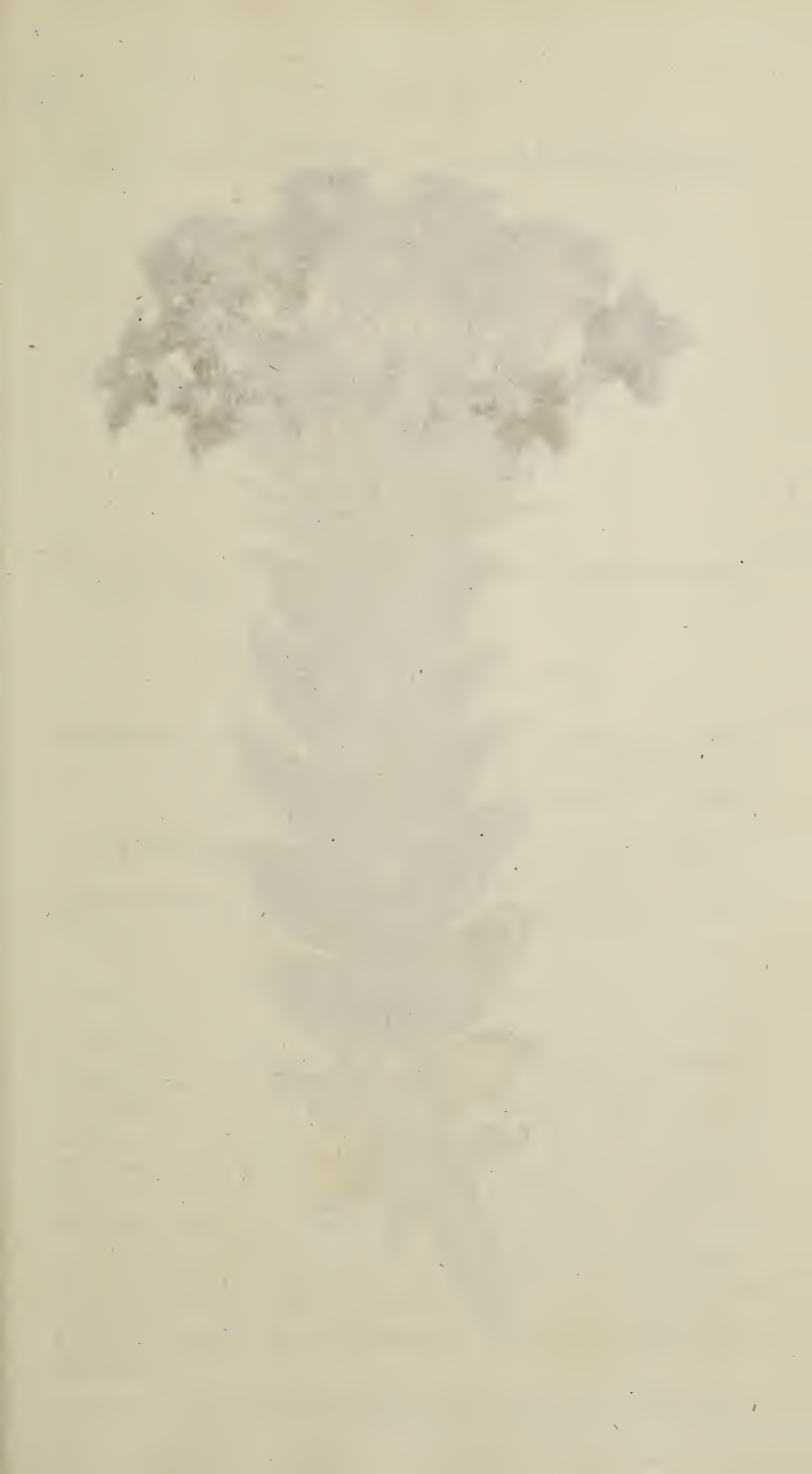
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CRASSULA COCCINEA. SCARLET-FLOWERED  
CRASSULA.



*Class and Order.*

PENTANDRIA PENTAGYNIA.

*Generic Character.*

*Cal.* 5-phyllus. *Petala* 5. *Squamæ* 5, nectariferæ ad basin germinis. *Caps.* 5.

*Specific Character and Synonyms.*

CRASSULA *coccinea* foliis ovatis planis cartilagineo-ciliatis, basi connato-vaginantibus. *Linn. Syst. Vegetab. ed.* 14. *Murr. p.* 304. *Mant.* 360. *Ait. Kew. v.* 1. *p.* 390.

COTYLEDON *africana* frutescens, flore umbellato coccineo. *Comm. Rar.* 24. *t.* 24. *Bradl. Succ.* 5. *p.* 7. *t.* 50.

COTYLEDON *africana* frutescens flore carneo amplo. *Breyn. Prodr.* 3. *p.* 30. *t.* 20. *f.* 1.

We have no doubt but that when this superb species of *Crassula* was first introduced from the Cape by Prof. BRADLEY, of Oxford, in 1714, it was regarded as a kind of a *Merveil de la Nature*; even now that it is common, we scarcely know any succulent that is superior to it, whether we regard its grandeur, the curious growth of its leaves, or the rich colour of its scarlet blossoms, readily produced on plants of a moderate size.

It flowers during the months of July, August, and September; is readily propagated by cuttings, and requires the same treatment as other tender succulents; Mr. AITON regards it as a dry stove plant; in the summer it should be placed in the open air.









HELIOPHILA ARABIOIDES. CLUB-POINTED  
HELIOPHILA.



*Class and Order.*

TETRADYNAMIA SILIQUOSA.

*Generic Character.*

*Nectaria* duo recurvata versus calycis basin vesicularem.

*Specific Character.*

HELIOPHILA arabioides, filiquis teretibus torulosis clavato-mucronatis; foliis linearibus carnosis tridentatis simplicibusque.

This pretty little annual, which is known in several of the more curious collections about town, under the name of *Heliophila integrifolia*, is a native of the Cape of Good Hope, from whence several other species of *Heliophila* have been imported into Europe, all of which, we believe, might be very readily characterised by the different figure of the filiqua; but for want of a proper attention to this most essential part, much confusion has arisen in the synonymy of those species which have been already described. The true *integrifolia* is a much larger plant, with lanceolate leaves all entire; the filiqua is compressed, which marks it to be a distinct species. Our plant cannot be referred to any yet described, although in many respects it resembles what has been figured by JACQUIN, as a remarkable variety of *integrifolia*, in his *Icones Rarior.* t. 506. It differs, however, so materially, that we cannot venture to quote this figure as a synonym. It has been, therefore, necessary to give it a new specific name, and we have formed a character, which, from a careful inspection of all the species preserved in the *Herbarium* of Sir JOSEPH BANKS, appears sufficient to distinguish it. The flowers, which are of a very brilliant colour, expand about noon and remain open but a few hours. Our figure was drawn from a plant raised by Mr. LODDIDGE, of Hackney. It is to be raised in the spring, in the same manner as other tender annuals.—S.











## QUASSIA AMARA. BITTER QUASSIA.

*Class and Order.*

DECANDRIA MONOGYNIA.

*Generic Character.*

*Cal.* 5-phyllus. *Petala* 5. *Neetarium* 5-phyllum. *Pericarpia*  
5 distantia, 1-sperma.

*Specific Character and Synonyms.*

QUASSIA *amara*, floribus hermaphroditis, foliis impari-pin-  
natis: foliolis oppositis sessilibus, petiolo articulato  
alato, floribus racemosis. *Linn. Supplem.* p. 235.  
*Syst. Veget. Murray*, p. 401. *Linn. Spec. Plant.*  
*edit. Willdenow.* tom. 2. p. 567.

This beautiful shrub is a native of Surinam, and both in its foliage and long racemes of fine scarlet flowers growing from the extremities of the branches, is a great ornament to the stove. It blossoms tolerably freely, and continues flowering during great part of the summer. The corolla is never fully expanded, but the petals having a spiral twist, they curl round one another and open in an irregular manner. All the figures of this plant hitherto published we believe have been drawn from dried specimens, and the corolla being expanded by art, a flower has been made totally different from the natural appearance. The bark, the wood, and the root, are all intensely bitter, and may on that account be useful in medicine; but the Lignum Quassia, which has been imported in considerable quantities, not only for pharmaceutical purposes, but as a substitute for hops, though formerly supposed to belong to this species, we are informed by later observers is the product of another, the Quassia excelsa. As a native of a warm climate, it requires the common treatment of stove plants. Is increased by cuttings in the early part of the year. It was most probably introduced since the publication of the *Hortus Kewensis* in 1789, as no mention is made of it in that work.









## ACHILLEA TOMENTOSA. WOOLLY MILFOIL.

*Class and Order.*

SYNGENESIA POLYGAMIA SUPERFLUA.

*Generic Character.*

*Cal.* ovatus, imbricatus, squamis ovatis; *flosculi* radii 5 vel plures; *receptaculum* paleaceum elevatum.

*Specific Character and Synonyms.*

ACHILLEA *tomentosa* foliis pinnatis hirsutis: pinnis linearibus dentatis. *Linn. Sp. Pl. ed. 3.* 1264. *Ait. Kew. v. 3. p. 239.*

MILLEFOLIUM *tomentosum luteum.* *Baub. Pin. 140.*

MILLEFOLIUM *luteum.* *Ger. Herb. 945. f. 1. emac. 1073. f. 1.*

This hardy perennial is a species of Milfoil, a plant of very humble growth; its leaves, which are woolly, though probably much less so in gardens than in their wild state, spread on the ground and mat together; its stalks seldom rise above the height of nine inches, and produce on their summits umbels of flowers of a fine yellow colour, which continue during most of the summer.

Grows naturally in Spain, the South of France, the Valais, and Italy; was cultivated in the Oxford Garden in 1658.

It is well adapted to the borders of the small flower garden, or to place on rock-work; is a plant of very ready growth, and increased by parting its roots in the Autumn or Spring.

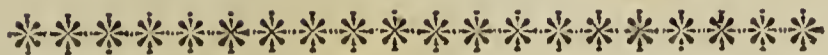








## ALLIUM MOLY. YELLOW GARLIC OR MOLY.

*Class and Order.*

HEXANDRIA MONOGYNIA.

*Generic Character.*

*Cor.* 6 partita patens, spatha multiflora. *Umbella* congesta.  
*Caps.* supera.

*Specific Character and Synonyms.*

ALLIUM *Moly* scapo nudo subcylindrico, foliis lanceolatis  
sessilibus, umbella fastigiata. *Sp. Pl.* 432. *Ait.*  
*Kew.* 428.

ALLIUM *Moly latifolium luteum* odore allii. *Baub. Pin.* 75.

ALLIUM *Moly montanum latifolium*, flavo flore. *Clus.*  
*App. Alt.*

MOLY *montanum latifolium luteo* flore. The yellow Moly.  
*Park. Parad.* p. 144. pl. 143. fig. 7.

Of this very numerous genus there are but few species with yellow flowers; this plant was therefore, no doubt, cultivated at first as much for its singularity as its beauty: PARKINSON figures and describes it in his *Parad. terr.* as he does many others of the same tribe, in which he appears to have been very rich; he observes that when the plant comes up with a single leaf, it produces no flowers, but when it has two it does. MILLER says the *Yellow Moly* has some beauty in the flowers, and deserves a place in borders where few better things will thrive.

Grows wild in Hungary, on Mount Baldo, about Montpellier, and in the Pyrenees; is a hardy perennial, growing to the height of ten or twelve inches, producing its flowers in umbels in the month of June; according to LOBEL was cultivated here by EDWARD LORD ZOUCH in 1604.

For the most part it increases plentifully, both by roots and seeds; but in some situations its bulbs are liable to be greatly injured by the wire-worm, the larva or maggot of an elater.







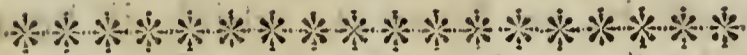






## AGAPANTHUS UMBELLATUS. AFRICAN

## AGAPANTHUS, OF BLUE LILY.

*Class and Order.*

## HEXANERIA MONOGYNIA.

*Generic Character.*

*Cor.* infera, infundibuliformis, hexapetaloidea regularis.

*Specific Character and Synonyms.*

AGAPANTHUS *umbellatus.* Ait. *Kew.* v. 1. p. 414. 509.  
L'Herit. *Sert.* 17.

CRINUM *africanum.* Linn. *Sp.* p. 419.

POLYANTHES *floribus umbellatis.* Linn. *Vir. Cliff.* 29.  
*Hort.* 126. Mill. *fig.* 8. 10.

TULBAGHIA *Heist. Brunsv.* 10. n. 6.

MAUHLIA *africana.* Dabl. *Obs. Bot.* 26.

HYACINTHUS *africanus tuberosus, fl. cæruleo umbellato.*  
*Breyn. prod.* 1. 25.

*Agapanthus* is a name first given to this genus of plants, of which there is only one species, in the *Hort. Kew.* of Mr. AITON. LINNÆUS and GÆRTNER have considered it as a *Crinum*, and it will be seen by the synonyms that it has had a variety of names imposed on it by other authors.

It is a native of the Cape, and no novelty in this country, having been cultivated in the Royal Garden at Hampton-Court in 1692; it is now found in most collections of green-house plants: the nurserymen make two varieties of it, a *major* and a *minor*.

Its root is not bulbous, but composed of many thick fleshy fibres; the leaves are thick, about a foot long, and near an inch broad; the flowering stem, which is naked, rises to the height of two or three feet, and produces on its summit a magnificent

magnificent umbel of fine blue flowers, which come forth irregularly during the whole of the year, but more frequently from August to January.

This plant only requires protection from frost and moisture, it should not, therefore, have any artificial warmth in winter, at least no more than is necessary to secure it from frost (unless our object be to force it, which it bears admirably well) and must be set in the open air in summer: at the close of the year, when coming into bloom, it will require the shelter of the green-house.

Is propagated by offsets, which come out from the side of the old plant, and may be taken off the latter end of June.

It will not grow and flower in perfection unless it have plenty of pot room, and the space that it thus occupies is often more than a small green-house can afford.







ALETRIS CAPENSIS. WAVED-LEAVED  
ALETRIS.



*Class and Order.*

HEXANDRIA MONOGYNIA.

*Generic Character.*

*Cor.* infundibuliformis. *Stamina* inferta laciniarum basi. *Caps.*  
3-locularis.

*Specific Character and Synonyms.*

ALETRIS *capensis*, acaulis, foliis lanceolatis undulatis, spica  
ovata, floribus nutantibus. *Linn. Spec. Plant.* p. 456.  
*Syst. Veget. Murray*, p. 336. *Burm. Prod.* 10.

VELTHEIMIA *viridifolia*, foliis lanceolatis plicato-undulatis  
obtusis, dentibus limbi rotundatis rectis. *Linn.*  
*Spec. Plant. edit. Willdenow.* tom. 2. p. 181.  
*Jacq. Hort. Schoenb.* 1. p. 41 t. 78.

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The genus Aletris, as established by LINNÆUS, has, by GLEDITSCH, in the *Berlin Transactions* for 1771, been divided, and a new genus constructed under the name of Veltheimia, to which this plant belongs. But although this alteration has been adopted by WILLDENOW, in his edition of the *Spec. Plant.* of LINNÆUS, we nevertheless adhere to the old name, by which it has been long known in our gardens, especially as we have had no opportunity of examining with care the capsules of the different species, from some difference in which the distinction is chiefly drawn. It is a native of the Cape of Good Hope; flowers from November to April. So ornamental a plant would probably be more common, were it more easily propagated; but it neither readily perfects its seeds, nor is it easily increased by its roots. MILLER directs the bulbs to be planted in pots filled with light earth, that they may be sheltered in October and through the winter, and in a dry, airy glass case, and sparingly watered, till May, when they may be placed abroad in a sheltered situation, and may be frequently watered in warm weather. Introduced in 1768. *Ait. Kew.*



ALBERT CARPENTER, WIND-LEAVED  
ALBERT

\*\*\*\*\*

General Order

Bartholomew's

Bartholomew's

For information of the Board of Directors  
of the Corporation

Resolved

That the Board of Directors of the Corporation do hereby  
authorize the Treasurer to pay to the order of the  
Bartholomew's Corporation the sum of \$1000.00  
for the purchase of the land described in the  
Certificate of Incorporation of the Corporation  
dated the 1st day of January 1888.

The same was certified by the Secretary of the Corporation  
and a copy of the same is on file in the office of the  
Secretary of the Corporation. In witness whereof  
I have hereunto set my hand and the seal of the  
Corporation at New York, this 1st day of January  
1888.

The same was certified by the Secretary of the Corporation  
and a copy of the same is on file in the office of the  
Secretary of the Corporation. In witness whereof  
I have hereunto set my hand and the seal of the  
Corporation at New York, this 1st day of January  
1888.









# HELICONIA PSITTACORUM. PARROT-BEAKED HELICONIA.



*Class and Order.*

PENTANDRIA MONOGYNIA.

*Generic Character.*

Spathæ. Cal. o. Cor. tripetala. Nectarium diphyllum.  
Pericarp. tricocon. Sem. solitaria.

*Specific Character and Synonyms.*

HELICONIA Psittacorum glabra, foliis lanceolatis ellipticis acuminatis, spathis erectis lanceolatis. *Bank's Mss.*

HELICONIA Psittacorum foliis caulinis basi rotundatis, spadice terminali flexuoso, spathis lanceolatis, nectario lanceolato concavo integro. *Swartz. Obs. 98.*

This beautiful stove plant is a native of Jamaica, growing in the mountains, in places cleared of wood, and in this situation acquires the stature of eight feet, with leaves proportionally large. With us it rises about three feet, with a straight round polished stem, naked at the upper part and clothed below with smooth shining leaves, alternate lanceolate-elliptic acuminate many-nerved, with membranaceous footstalks sheathing the stem. At a more advanced stage than that at which our drawing was taken, the top of the stem becomes flexuous or zig-zag, and from each bend there grows an erect lanceolate concave spatha, within which the flowers grow in clusters upon short peduncles, these remain closed during the function of flowering, opening only just before they fall. The Corolla, properly speaking, is monopetalous, the whole falling off in one piece; if carefully examined it divides into five segments, the three outermost of which are usually described as the three petals of the corolla; the two innermost form  
what,



what, in this family of plants, LINNÆUS calls the nectary. The two superior segments of the corolla are nearly linear, and are firmly attached above half way along the back of the nectary; the lower one is like the upper, but more deeply grooved, embracing the edges of the nectary, from which it separates nearly to the base. The Nectary consists chiefly of one boat-shaped sharp-pointed segment, the edges of which are folded together, enclosing the stamens and style, and opening only a little way below the point to allow of the exit of the anthers and stigma: within this is likewise included, quite concealed from the eye, the second segment of the nectary, which is very small, spatulate, somewhat concave, and is attached at its back to the lower part of the inferior segment of the corolla; this small part is common to the genus and also to *Strelitzia*, and is supposed by JUSSIEU to be the rudiment of a sixth stamen. The Stamens are five. The Filaments, which are the length of the nectary, are inserted at its extreme base, and are curved at their lower end. The Anthers are formed in a singular manner: the filament is expanded into a membrane at the upper part, and the edges being doubled in, contain within this fold a white pollen of a large size. The Germen is obtusely three-cornered, contains three cells, and one seed in each cell. The Style is the length of the stamens. The Stigma small, downy, and hooked.

Our plant appears to be the same as that described by SWARTZ, but perhaps differs from the *Heliconia Pfittacorum* of the *Supplementum Plantarum*. Could it be satisfactorily determined that the two species are distinct, this name, by right of priority, belongs to the other, and our's ought to have a new one; but from the many errors in the work of the younger LINNÆUS, we are led to mistrust his description: until, therefore, the whole genus shall be better understood, we think it right to retain the name, as adopted by SWARTZ, rather than to run the risk of increasing the confusion by changing it.

Our drawing was made from a plant which flowered in August 1800, amidst a great variety of beautiful and rare exotics, in the superb collection of E. D. WOODFORD, Esq. at Vauxhall\*.

It is increased by offsets from the roots, and requires a treatment similar to the *Strelitzia*.—S.

\* It flowered likewise at the same time at JAMES ROBINSON's, Esq. at Stockwell.









CALYCANTHUS FLORIDUS. CAROLINA  
ALLSPICE.



*Class and Order.*

ICOSANDRIA POLYGYNIA.

*Generic Character.*

*Cal.* 1-phyllus, urceolatus, squarrosus: foliolis coloratis. *Cor.* calycina. *Styli* plurimi stigmatate glanduloso. *Sem.* plurima, caudata intra calycem succulentum.

*Specific Character and Synonyms.*

CALYCANTHUS *floridus* petalis interioribus longioribus.  
*Linn. Sp. Pl. ed. 3. p. 718. Ait. Kew.*  
*v. 2. p. 220.*

BUTNERIA anemones flore. *Dubam. arb. 1. p. 114. t. 45.*  
BASTERIA foliis ovatis acuminatis, caule fruticoso. *Mill.*  
*Diēt. t. 60.*

BEURERIA petalis coriaceis oblongis, calycis foliolis reflexis.  
*Ehret. Diēt. t. 13.*

FRUTEX corni foliis, floribus instar anemones stillatæ,  
petalis crassis rigidis colore sordide ru-  
bente, cortice aromatico. *Catesb. Carol.*  
*1. p. 46. t. 46.*

The *Calycanthus floridus* is a spreading, deciduous, hardy shrub of low growth, seldom rising above the height of four or five feet, producing numerous flowers from May to August, singular in their form, colour, and scent, the latter Mr. MILLER describes as disagreeable, contrary to the general opinion; the bark has a very strong aromatic odour, whence the inhabitants of Carolina gave it the title of Allspice; it varies in the form of its leaves, hence two varieties of it are enumerated in the *Hort. Kew.* of Mr. AITON, 1 *foliis oblongis*, 2 *foliis subrotundo-ovatis*.

“ Mr.

“ Mr. CATESBY, who first introduced it into the English  
“ gardens in 1726, procured it from the country, some hundred  
“ miles on the back of Charles-Town in Carolina. It was  
“ very scarce here till about the year 1757, when many plants  
“ were brought from Carolina, having been greatly increased  
“ in the gardens near Charles-Town.” *Mill. Dict.*

Mr. MILLER gave it the name of *Basteria*, in honour of  
his very worthy friend Dr. JOB BASTER, under which name  
it is to be found in his own editions of his Dictionary.

“ It is usually propagated by laying down the young branches  
“ in Autumn, which will take root in one year, before which  
“ time they should not be transplanted; when taken from the  
“ mother plant they should be set where they are intended to  
“ remain, for they do not bear transplanting well after they  
“ are grown to any size; when the branches are laid they  
“ should be covered yearly with rotten tan to keep out the  
“ frost; when the layers are transplanted the ground should  
“ be covered with mulch, to prevent its becoming too dry,  
“ and watered in dry weather, but not too abundantly.”  
*Mill. Dict.*







GERANIUM ARGENTEUM. SILVER-LEAV'D  
CRANE'S-BILL.



*Class and Order.*

MONADELPHIA DECANDRIA.

*Generic Character.*

*Cal.* 5-phyllus. *Cor.* 5-petala, regularis. *Nect.* glandulæ 5-melliferæ, basi longiorum filamentorum adnatæ. *Fructus* 5-coccus rostratus; rostra simplicia nuda (nec spiralia nec barbata).

*Specific Character and Synonyms.*

GERANIUM *argenteum* pedunculis bifloris, foliis subpeltatis septempartitis trifidis tomentoso sericeis, petalis emarginatis. *Linn. Syst. Veget. ed. 14. Murr. p. 617. Sp. Pl. ed. 3. p. 954.*

GERANIUM *argenteum alpinum.* *Baub. Pin. 318.*

GERANIUM *argenteum montis baldi.* *Baub. Hist. 3 p. 474.*

This extremely rare, beautiful, and hardy species of Geranium, we obtained a few years since of Mr. LODDIGES, Nurseryman, of Hackney, who we believe was the first that introduced it from Germany. It is one of the many curious plants found on the summit of *Mount Baldus*, celebrated in the annals of Botany for its choice vegetable productions.

It is distinguished from all our other hardy Geraniums by its silvery foliage; its flowers are large, and extremely delicate; taken altogether, when it grows and blossoms in perfection, it may be regarded as one of the most desirable of the alpine tribes.

It blossoms in June and July, and with us at Brompton has ripened its seeds, though in no great number; from these the plant may be raised, as also by parting its roots, but the former is the preferable mode.

It succeeds best kept in a pot of light sandy bog earth, taking care that it does not suffer through want of water in summer, nor from having too much in the winter; we need scarcely add, that so rare a plant, growing naturally in so pure an atmosphere, requires, as it deserves, more than ordinary care to preserve it.

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

RESEARCH REPORT

1950

This report is a preliminary report on the results of the experiment described in the title. The experiment was carried out in the Physics Department of the University of Chicago, under the direction of Professor [Name]. The work was done by [Name] and [Name].

The experiment was designed to determine the [purpose of the experiment]. The apparatus used was a [description of the apparatus]. The results of the experiment are shown in the following figures.

Figure 1 shows the [description of Figure 1]. Figure 2 shows the [description of Figure 2]. Figure 3 shows the [description of Figure 3].

The results of the experiment are in good agreement with the theoretical predictions. The [conclusion of the experiment].

This work was supported by the [funding source].